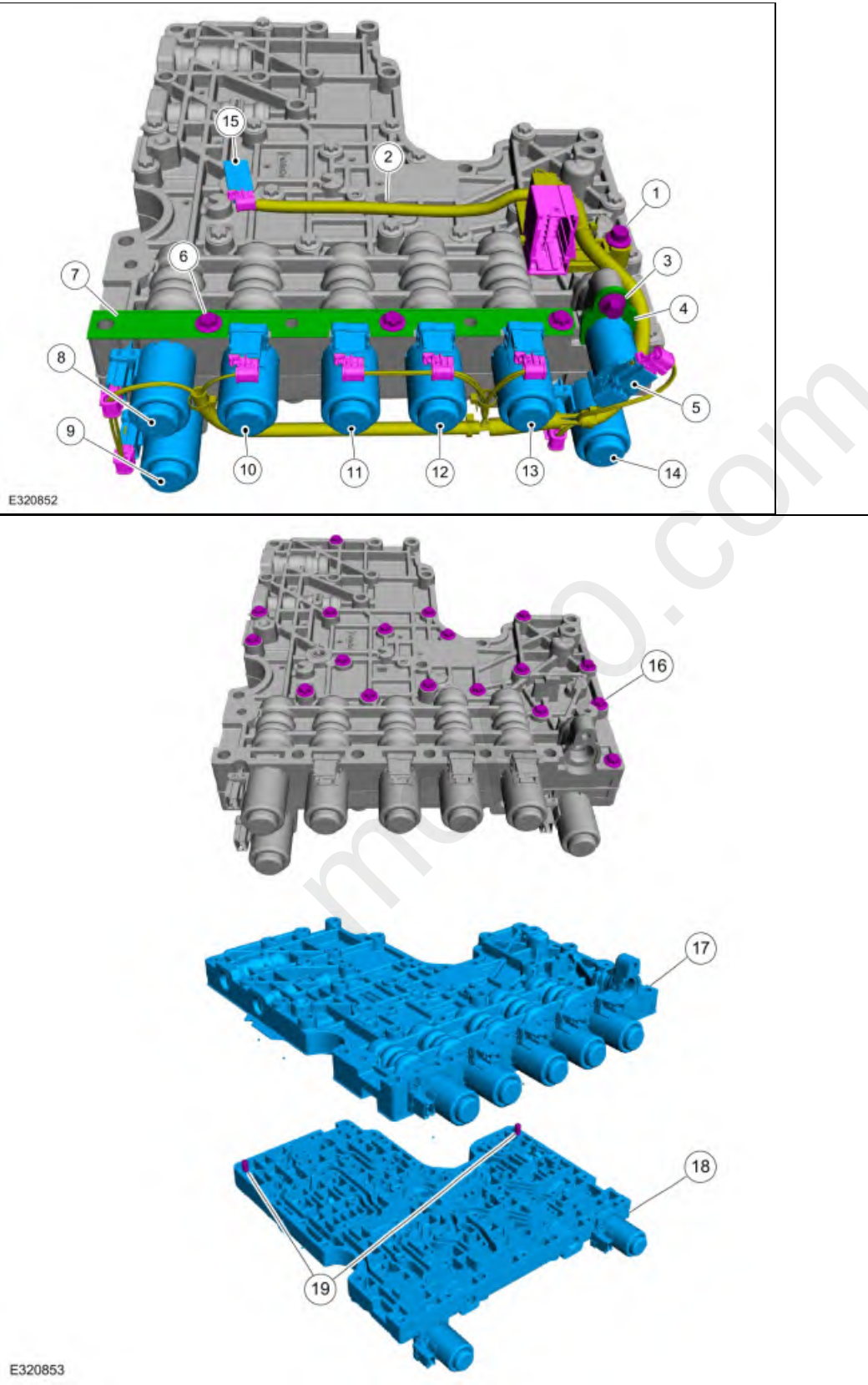


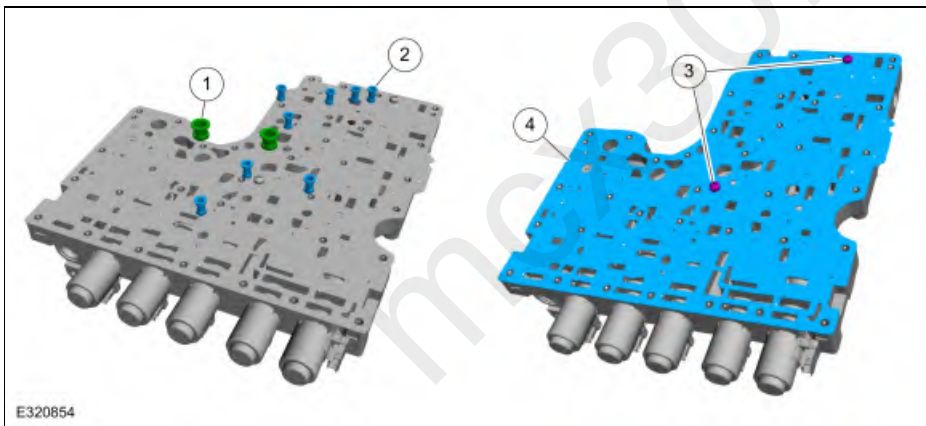
Main Control Valve Body

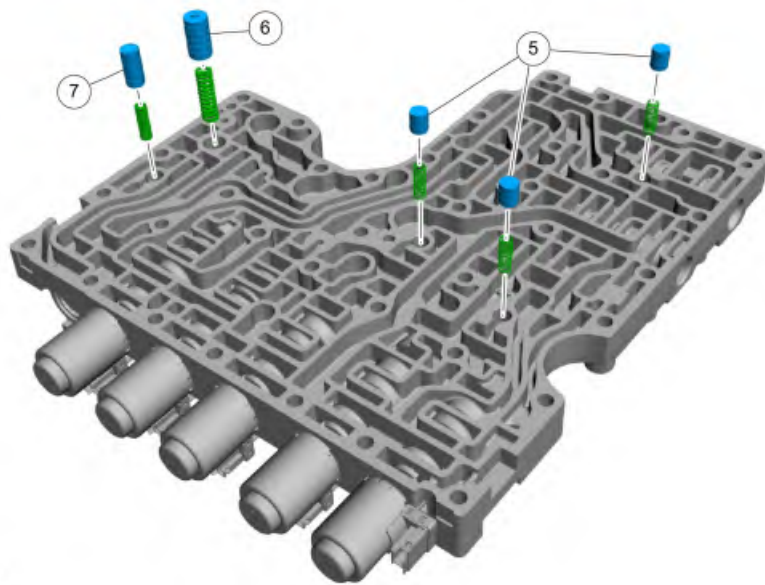


Item	Description

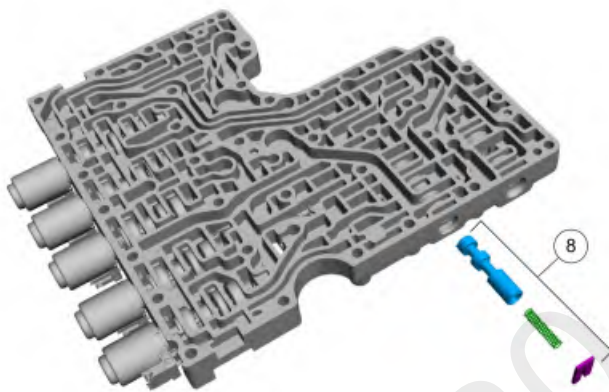
1	Internal wiring harness retaining bolt
2	Internal wiring harness
3	Solenoid retaining plate bolt
4	Solenoid retaining plate
5	LPC solenoid
6	Shift solenoid retaining plate bolts
7	Shift solenoid retaining plate
8	SSC
9	SSB
10	SSA
11	SSF
12	SSE
13	SSD
14	TCC solenoid
15	TFT
16	Lower-to-upper valve body bolts
17	Lower valve body
18	Upper valve body
19	Valve body dowel pins

Lower Valve Body

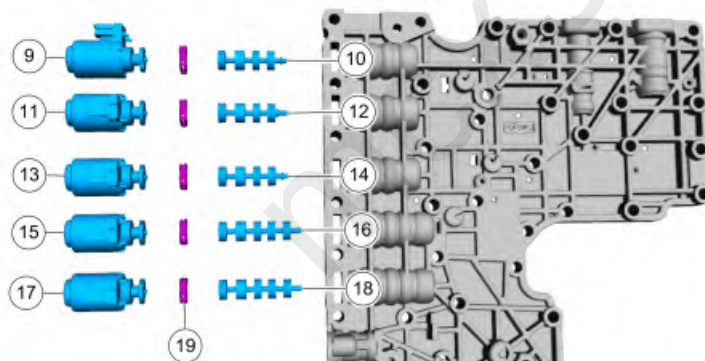




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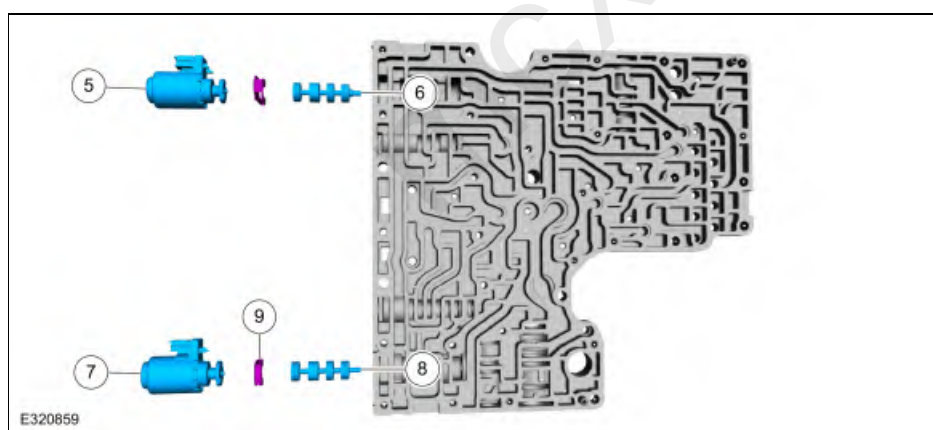
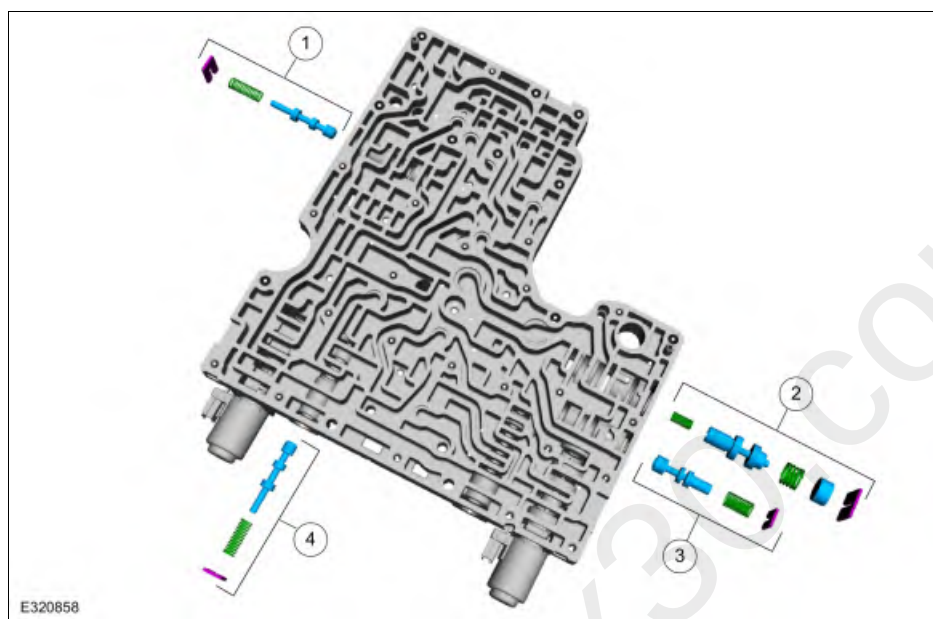


E320857

1	Seperator plate filters (large)
2	Seperator plate filters (small)
3	Valve body separator plate bolts
4	Valve body separator plate
5	Control bypass valve assemblies
6	Accumulator valve assembly
7	Control pressure regulator valve assembly
8	Comp feed valve assembly
9	SSC
10	C clutch control valve

11	SSA
12	A clutch control valve
13	SSF
14	F clutch control valve
15	SSE
16	E clutch control valve
17	SSD
18	D clutch control valve
19	Shift solenoid retainers

Upper Valve Body



1	B clutch latch valve assembly
2	Main regulator valve assembly
3	Priority valve assembly
4	A clutch latch valve assembly
5	SSB
6	B clutch control valve
7	TCC solenoid
8	TCC clutch control valve

The main control consists of a upper and lower valve body with solenoids that are controlled by a PCM for gas engine applications or a TCM for diesel engine applications. The PCM or TCM operates the electrical components to provide refined engagement feel, shift feel, and shift scheduling.

Clutch Control Valves

The clutch control valves are used to regulate line pressure for smooth clutch application. The clutch control valve design includes a slightly smaller land at the right end of the valve. The adjacent different diameter lands creates a differential chamber. Fluid under pressure in this chamber applies more force to the larger diameter land than to the smaller diameter land.

- The clutch control valve moves to open or close a passage between line pressure and the clutch control circuit. With the valve at the left of the bore, the passage between line pressure and X clutch control is restricted (closed) and the clutch is released. With the valve at the right of the bore, the passage between line pressure and X clutch control is not restricted (open) and the clutch is applied.
- The clutch control valve is positioned in the bore balancing two opposing forces. On the left side of the valve is the shift solenoid that pushes the valve to the right, thereby opening the passage and increasing pressure in the clutch control circuit.
- Clutch control pressure in the differential chamber applies more force to the land on the left pushing the valve towards the solenoid, thereby lowering pressure in the clutch control circuit.
- When the shift solenoid is de-energized, the weight of the fluid in the elevated exhaust circuit acts on the clutch control valve to keep it positioned against the solenoid pintle. The passage from line pressure to X clutch control is closed.
- To apply the clutch, the PCM or the TCM applies current to the shift solenoid and hydraulic pressure in the X clutch control circuit increases proportionally.
- As the solenoid force increases, the clutch control valve moves and connects line pressure to X clutch control.
- X clutch control fluid begins to fill the clutch. X clutch control also acts on the clutch control valve via the differential chamber.
- The clutch control valve cycles rapidly as the X clutch control pressure increases and the clutch applies.